

RANK is used to inhibit the interaction of RANKL with membrane-bound or solid-phase associated RANK (i.e., signal transduction assays). Such methods are well known in the art. --

C 1
In the Claims:

Please amend the claims as follows:

Sub N.Y.
C 2
~~5. (Twice amended) A method of ameliorating effects of excess bone loss, comprising administering a soluble RANK polypeptide composition to an individual at risk for excess bone loss, wherein said individual is at risk from or suffers from a condition selected from the group consisting of bone cancer, multiple myeloma, melanoma and breast cancer, and further wherein the soluble RANK polypeptide is capable of binding to a RANKL polypeptide that consists of amino acids 1-317 of SEQ ID NO:8 and is selected from the group consisting of:~~

- ~~(a) a polypeptide encoded by a DNA that encodes a protein comprising amino acids 33-196 of SEQ ID NO:2;~~
- ~~(b) a polypeptide encoded by a DNA that is capable of hybridizing to a DNA consisting of the nucleotide sequence shown in SEQ ID NO:1 under stringent conditions, wherein stringent conditions comprise hybridizing at 63°C in 6 x SSC;~~
- ~~(c) a polypeptide that is at least 80% identical in amino acid sequence to a RANK polypeptide comprising amino acids 1-213 of SEQ ID NO:2; and~~
- ~~(d) a polypeptide comprising amino acids 33-213 of SEQ ID NO:2.~~

C 3
Sub N.Y.
Please cancel claim 6.

Please cancel claim 7.

Please cancel claim 8.

C 4
~~9. (Once amended) The method of claim 5, wherein the RANK further comprises a polypeptide selected from the group consisting of an immunoglobulin Fc domain, an immunoglobulin Fc mutein, a FLAG™ tag, a peptide comprising at least 6 His residues, a leucine zipper, and combinations thereof.~~

Please cancel claim 10.

C 4
~~11. (Once amended) The method of claim 9, wherein the soluble RANK polypeptide comprises an amino acid sequence that is at least 80% identical in amino acid sequence to amino acids 33-213 of SEQ ID NO:2.~~

Please cancel claim 12.

Sub 33
C5
C6
C7

13. (Once amended) A method of ameliorating the effects of excess bone loss comprising administering to a patient in need thereof a therapeutic composition comprising a recombinant soluble RANK polypeptide, wherein said patient suffers from a condition selected from the group consisting of squamous cell carcinoma, lung cancer, prostate cancer, hematologic cancer, head and neck cancer and renal cancer, and further wherein the soluble RANK polypeptide is capable of binding to a RANKL polypeptide that consists of amino acids 1-317 of SEQ ID NO:8 and is selected from the group consisting of:

- (a) a polypeptide encoded by a DNA that encodes a protein comprising amino acids 33-196 of SEQ ID NO:2;
- (b) a polypeptide encoded by a DNA that is capable of hybridizing to a DNA consisting of the nucleotide sequence shown in SEQ ID NO:1 under stringent conditions, wherein stringent conditions comprise hybridizing at 63°C in 6 x SSC;
- (c) a polypeptide that is at least 80% identical in amino acid sequence to amino acids 1-213 of SEQ ID NO:2; and
- (d) a polypeptide comprising amino acids 33-213 of SEQ ID NO:2.

Please cancel claim 14.

15. (Once amended) The method of claim 16, wherein the soluble RANK polypeptide comprises an amino acid sequence that is at least 80% identical in amino acid sequence to amino acids 33-213 of SEQ ID NO:2.

16. (Once amended) The method of claim 13, wherein the soluble RANK polypeptide further comprises one or more polypeptides selected from the group consisting of an immunoglobulin Fc domain, an immunoglobulin Fc mutein, a FLAG™ tag, a peptide comprising at least 6 His residues and a leucine zipper.

Please cancel claim 19.

Please cancel claim 22.

Please cancel claim 23.

Please cancel claim 24.

Please add the following new claims to the application:

-- 25. (New) A method according to claim 18, wherein the soluble RANK polypeptide consists of amino acids 30-213 of SEQ ID NO:2 fused with an amino acid sequence as shown in SEQ ID NO:3.